

PHNL030365

PCT/IB2004/050331

10

## CLAIMS:

- 5 1. A method of determining at least one marking element on a substrate (1), characterized in that at least one fictitious marking element (5) on the substrate (1) is determined from design data of the substrate (1), where the fictitious marking element (5) is unique for a predefined area of the substrate (1).
- 10 2. A method as claimed in claim 1, characterized in that the fictitious marking element is obtained by selecting at least two transitions (6, 7, 17, 18) of at least one element on the substrate where the transitions (6, 7, 17, 18) enclose an angle to each other.
3. A method as claimed in claim 2, characterized in that the two transitions (6, 7,  
15 17, 18) are positioned substantially transverse to each other.
4. A method as claimed in claim 2 or 3, characterized in that the substrate (1) spans an x, y system where from the two selected transitions (6, 7) an x coordinate of the first transition is selected combined with a y coordinate of the second transition..  
20
5. A method as claimed in one of the claims 2-4, characterized in that the position of the two selected transitions (6, 7, 17, 18) is compared with the position of other sets (S) of at least two transitions (6, 7, 17, 18) in order to determine whether the two selected transitions are unique for the predefined area of the substrate (1).  
25
6. A method as claimed in claim 2, characterized in that the element comprises at least two electrically conductive track portions (2) in which each track portion is bounded by at least two transitions running substantially parallel (6, 7, 17, 18), with a diameter (15) running in between, after which the diameters (15) of the track portions are selected, which  
30 diameters (15) enclose an angle to each other.
7. A method as claimed in claim 6, characterized in that the two selected diameters (15) are compared with other sets (S) of at least two diameters (15) to determine whether the two selected diameters are unique for the predefined area of the substrate.

PHNL030365

PCT/IB2004/050331

11

8. A method as claimed in claim 1, characterized in that the fictitious marking element (5) is obtained from the selection of at least two circles where the position of the circles relative to each other is determined.

5

9. A method as claimed in claim 8, characterized in that the position of the centers of the two circles is selected.

10. A method as claimed in claim 8 or 9, characterized in that the position of two selected circles is compared with positions of other sets of at least two circles to find out whether the two selected circles are unique for the predefined area of the substrate.

11. A method as claimed in one of the preceding claims, characterized in that for determining the marking element from the design data the position of components in a component layer is used, the position of tracks in an electrically conductive layer, the position of anti-soldering agent in an anti-soldering layer and/or of text in a text layer.

15

12. A method as claimed in claim 1, characterized in that the fictitious marking element is used for placing a component on a substrate.